PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference AWL/116/PC	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US03/19685	International filing date *(day/month/year)* 20 June 2003 (20.06.2003)	Priority date *(day/month/year)* 21 June 2002 (21.06.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): D21H 17/05, 17/44, 21/00 and US Cl.: 162/158		
Applicant AHLSTROM WINDSOR LOCKS LLC		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☒ Certain observations on the international application

Date of submission of the demand 20 January 2004 (20.01.2004)	Date of completion of this report 23 August 2004 (23.08.2004)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Peter Chin Jean Proctor Paralegal Specialist Telephone No. (571) 272-1700

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application N
PCT/US03/19685

I. Basis of the report

1. With regard to the elements of the international application:*

☐ the international application as originally filed.

☒ the description:
pages 1-12 as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

☒ the claims:
pages NONE , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages 13-15 , filed with the letter of 25 June 2004 (25.06.2004).

☐ the drawings:
pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

☐ the sequence listing part of the description:
pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages NONE

☐ the claims, Nos. NONE

☐ the drawings, sheets/~~fig~~ NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*
*** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application N
PCT/US03/19685

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims 1-19	YES
	Claims NONE	NO
Inventive Step (IS)	Claims NONE	YES
	Claims 1-19	NO
Industrial Applicability (IA)	Claims 1-19	YES
	Claims NONE	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-19 lack an inventive step under PCT Article 33(3) as being obvious over Viazmensky et al (US 5,292,581) or Win et al (US 5,667,635). The prior art shows a wet wipe in which the fiber substrate has been treated with a wet strength agent such as polyamide-epichlorohydrin resins, which corresponds to the claimed "chemical blocking material". The claims now recite a lower limit of 2.1 weight % of the chemical blocking material. This lower limit is not critical as evidenced by the fact that as little as 1% by weight can be used. Obviously, one could use more wet strength agent. In fact Win et al clearly teaches as much as 3% wet strength agent can be used in making a wet wipe, column 3,lines 39-44). Cationic lotions for wet wipes are admitted by Applicant to be old see page 1 of the instant specification. It would have been obvious to employ the claimed cationic lotion in the wet wipe of Viazmensky et al or Win et al.

Claims 1-19 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

---------- NEW CITATIONS ----------

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claims 1,12 and 17 objected to as lacking clarity under PCT Rule 66.2(a)(v) because the claims are not fully supported by the description. The application, as originally filed, did not describe: There is no specific support for the numeric lower limit of 2.1% of the chemical blocking material in the description.

What is Claimed is:

1. A method for increasing release of a cationic lotion component from a wet wipe, comprising the steps of forming a single ply web material comprising cellulosic fibers; treating the fibers of the web material with a solution of a chemical blocking material to provide in the web material about 2.1% to about 5% (by dry weight of cellulosic fibers) of the chemical blocking material; and treating the web material with a chemical lotion containing the cationic lotion component after the step of treating the fibers.

2. The method of claim 1 wherein the solution of chemical blocking material is applied to the fibers after the web material is formed.

3. The method of claim 1 wherein the solution of chemical blocking material is applied to the fibers before the web material is formed.

4. The method of claim 1, wherein the web material comprises about 20% to about 100% cellulose.

5. The method of claim 1, wherein the chemical blocking material comprises a polyamide-epichlorohydrin resin; a polyamide resin; a melamine resin; a high molecular weight cationic chemical material or combinations thereof.

6. The method of claim 1, wherein the chemical blocking material comprises about 2.1% to about 2.5% (by dry weight of cellulose fibers) in the nonwoven sheet.

7. The method of claim 1, wherein the web material comprises a wet laid, air laid or carded portion.

8. The method of claim 1, wherein the step of forming the web material comprises air laying the cellulosic fibers; and the step of treating the fibers comprises adding the chemical blocking material to the web material using a size press or a

spray application, wherein the chemical blocking material comprises at least one of a polyamide-epichlorohydrin resin; a polyamide resin; a melamine resin; or a high molecular weight cationic chemical compound.

9. The method of claim 1, wherein the step of forming the web material comprises carding the cellulosic fibers; and the step of treating the fibers comprises adding the chemical blocking material to the web material using a size press or a spray application, wherein the chemical blocking material comprises at least one of a polyamide-epichlorohydrin resin; a polyamide resin; a melamine resin; or a high molecular weight cationic chemical compound.

10. The method of claim 1, wherein the step of forming the web material comprises preparing a furnish of the cellulosic fibers in a fluid and wet laying the furnish over a forming surface; and the step of treating the fibers comprises adding the chemical blocking material to at least one of the furnish or the formed web material, wherein the chemical blocking material comprises at least one of a polyamide-epichlorohydrin resin; a polyamide resin; a melamine resin; or a high molecular weight cationic chemical compound.

11. The method of claim 1, wherein the web material further comprises at least one of synthetic material or bicomponent fibers.

12. A method of decreasing cationic lotion component binding to cellulose material in a wet wipe sheet, comprising:

preparing a furnish comprising cellulose material in a fluid;

wet laying the furnish over a forming surface to form a mat; and

drying the mat to form a single ply sheet;

adding about 2.1% to about 5% (by weight of cellulose material) of a chemical blocking material to at least one of the furnish, the mat or the sheet; and

soaking the sheet with a chemical lotion including the cationic lotion component after the step of adding the chemical blocking material to form a wipe;

wherein the wipe comprising about 2.1% to about 5% of chemical blocking material retains about 10% less of cationic lotion component as compared to a wipe comprised of similar materials without the chemical blocking material.

13. The method of claim 12 wherein the furnish further comprises at least one of synthetic material or bicomponent fibers.

14. The method of claim 12 wherein the chemical blocking material comprises at least one of a polyamide-epichlorohydrin resin; a polyamide resin; a melamine resin; or a high molecular weight cationic chemical compound.

15. The method of claim 12 wherein the chemical blocking material consists essentially of a polyamide-epichlorohydrin resin.

16. The method of claim 12, comprising the step of hydroentangling the mat prior to the step of drying.

17. A disinfectant wet wipe, comprising a single ply nonwoven fibrous sheet comprising about 20% to about 100% cellulose material; about 2.1% to about 5% (by dry weight of cellulose material) of a chemical blocking material; and a chemical lotion comprising a disinfectant material including at least one of dimethyl benzyl ammonium chloride or dimethyl ethylbenzyl ammonium chloride; wherein the chemical blocking material lessens retention of the disinfectant material to the nonwoven sheet.

18. The wet wipe of claim 17 wherein the chemical blocking material is a polyamide-epichlorohydrin resin.

19. The disinfectant wet wipe of claim 17 comprising about 2.1% to about 2.5% (by dry weight of cellulose material) of the chemical blocking material.

AMENDED SHEET